

IN THE ABSTRACT

Please delete the original Abstract and replace it with the following new Abstract:

A method of forming a barrier metal film formed of a nitride film including tungsten by thermal CVD. The method includes positioning a substrate in a processing vessel, maintaining a pressure in the processing vessel, and forming a film containing tungsten on one side of the substrate by supplying a process gas including WF_6 gas and SiH_4 gas into the processing vessel. The supplying of the process gas into the processing vessel is then shut off and the process gas is removed from the processing vessel by supplying a purging gas into the processing vessel, while evacuating the processing vessel. A process of nitriding the film containing tungsten is then performed by supplying NH_3 gas.